

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 9-14, 17, and 19-39 are pending in the present application. Claims 9-14, 17 and 20 are amended, Claims 1-8, 15, 16, and 18 are cancelled without prejudice or disclaimer, and Claims 21-39 are added by the present amendment.

In the outstanding Office Action, Claims 1-13 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,222,589 to Faroudja et al. (hereinafter "Faroudja"); Claims 14-20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Faroudja.

Claims 1-13 stand rejected under 35 U.S.C. § 102(e) as anticipated by Faroudja. Because the rejection of Claims 1-8 is moot in view of their cancellation, that rejection is now addressed with respect to amended independent Claim 9.

Claim 9 is directed to an image processing method including, *inter alia*, discriminating whether a display device is an impulse type display device. Amended independent Claim 10 recites a similar discriminating step. Claims 11-13 depend from Claim 9.

By way of background, image display devices include impulse type displays (*e.g.*, CRTs and FEDs) and hold type displays (*e.g.*, LCDs and ELDs).<sup>1</sup> Impulse type displays emit light only for the duration that their fluorescent substances glow after excitation by an impulse.<sup>2</sup> Hold type displays continue to emit light until a new image (*i.e.*, frame) is written.<sup>3</sup> Due to these differences, impulse type displays suffer from a picture jumping phenomenon, while hold type displays suffer from a discontinuous display problem.<sup>4</sup>

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<sup>1</sup> Specification, page 1, lines 17-27.

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*

<sup>4</sup> Specification, page 2, line 7 — page 3, line 18.

In a non-limiting example, Figure 1 illustrates an embodiment of the claimed invention. The image processing device 1 includes a picture signal converting part 10 and a motion discriminating part 20.<sup>5</sup> The picture signal converting part 10 converts an input picture signal  $S_{v1}$  and an input synchronizing signal  $S_{s1}$  into an output picture signal  $S_{v2}$  and an output synchronizing signal  $S_{s2}$ , on the basis of a display system control signal  $S_c$  from the motion discriminating part 20.<sup>6</sup> The motion discriminating part 20 determines whether continuous two-frame pictures are moving pictures or still pictures.<sup>7</sup> A signal indicating the display device 50 type (*e.g.*, impulse type or hold type) is input to the motion discriminating part 20, which permits the discriminating part 20 to be set by a combination of both the determined and input information.<sup>8</sup>

Faroudja does not teach the step of discriminating whether a display device is an impulse type versus a non-impulse type display. Rather, Faroudja teaches a method of converting a conventional 2-1 interlaced television signal into a signal suitable for display on a progressively-scanned variable-frame-rate high-resolution computer-type monitor, in which frames are skipped or duplicated to prevent memory underflow or overflow.<sup>9</sup> Thus, in Faroudja, there is no need to determine whether the display is of the impulse type.<sup>10</sup>

Accordingly, Applicants respectfully request the rejection of Claims 1-13, under § 102(e) as anticipated by Faroudja, be withdrawn.

Claims 14-20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Faroudja. Because the rejection of Claims 15, 16, and 18 is moot in view of their cancellation, and because amended independent Claim 14 from which Claims 17 and 19 depend recites the

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<sup>5</sup> Specification, page 11, lines 22-24.

<sup>6</sup> Specification, page 11, lines 25-35.

<sup>7</sup> Specification, page 12, line 31 — page 13, line 5.

<sup>8</sup> Specification, page 22, lines 21-31.

<sup>9</sup> Faroudja, Abstract.

<sup>10</sup> Faroudja, Abstract.

distinguishing feature discussed above, that rejection is now addressed with respect to only Claim 20.

As originally presented, Claim 20 is directed to an image display system including, *inter alia*, a display device displaying a picture while changing the picture every frame.<sup>11</sup>

Faroudja does not teach or suggest a display device for changing and displaying a picture every frame. Rather, Faroudja teaches a video signal deinterlacer for generating a succession of progressively-scanned video frames in which each frame is repeated at least twice in succession.<sup>12</sup>

Accordingly, for the reasons stated above, Applicants respectfully request the rejection of Claim 20, under § 103(a) as unpatentable over Faroudja, be withdrawn.

Independent Claims 9, 10, and 14 are amended and Claims 21-39 are added to recite the present invention in a varying scope. Those claims are generally constructed in the manner explained below.

Claims 9, 10, and 30 recite similar methods. Independent Claims 9 and 10 are rewritten in independent form and amended to recite the step of discriminating whether the display device is an impulse type or hold type display,<sup>13</sup> respectively. As originally and presently presented, Claims 9 and 10 further recite steps corresponding specifically to either of impulse type or hold type displays, respectively. New independent Claim 30 recites the step of discriminating whether the display device is an impulse type or hold type display, and further recites steps corresponding to both impulse type and hold type displays. The claims depending from independent Claims 9, 10, and 30 correspond to Claims 6-8 and 11-13, as originally filed.

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<sup>11</sup> See Specification, page 12, lines 15-30, for a non-limiting explanation of this feature.

<sup>12</sup> Faroudja, col. 3, lines 59-62; see also col. 4, lines 59-67 and col. 5, lines 50-58.

<sup>13</sup> See above discussion for § 112, first paragraph, support.

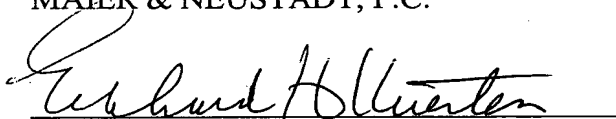
Claims 14 and 37 recite similar systems. Independent Claims 14 and 37 recite a discriminating part configured to discriminate whether the display device is an impulse type or hold type display, respectively. Claims 14 and 37 are similar to independent Claim 20, which does not recite the discriminating part. The claims depending from independent Claims 14 and 37 correspond to Claims 17 and 19, as originally filed.

For the reasons stated above, new Claims 21-39 are believed to distinguish over the applied art.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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